

CERTIFIED MAIL
(Return Receipt Requested)
Certified Mail No. 7099 3220 0004 0119 1099

August 30, 2001

Mr. Iraj Javandel
Lawrence Berkeley National Laboratory
I Cyclotron Road, Mail Stop 90-116
Berkeley, CA 94720

Dear Mr. Javandel:


Re: Wastewater Discharge Permit No. 5034789 10

Enclosed is the Wastewater Discharge Permit for the treated groundwater discharge located at I Cyclotron Road in Berkeley, effective September 9, 2001, through September 8, 2003. Please read the Permit Terms and Conditions carefully. As a Permit holder, you are legally responsible for complying with all Pen-nit conditions and requirements.

Lawrence Berkeley National Laboratory shall report to the Source Control Division any changes, either permanent or temporary, to the premises or operation that significantly affect either the volume or quality of wastewater discharged or deviate from the Terms and Conditions under which this Permit is granted.

If you have any questions regarding this matter, please contact Sue Jenn6 of the Source Control Division at (510) 287-1541.

Sincerely,



LAURA J. JOHNSON
Acting Manager of Source Control

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Enclosures



WASTEWATER DISCHARGE PERMIT

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GENERAL CONDITIONS

- I. Title I, Section 5 of EBN= Ordinance No. 31 1 prohibits the discharge of groundwater to the community sewer. This Permit to discharge treated groundwater is considered a waiver of the prohibition and is issued based on Lawrence Berkeley National Laboratory's application that discharge of pollutants to the community sewer will be minimized and methods to reclaim the groundwater, to the extent technically and economically feasible, have been made.
- II. This Permit is granted to Lawrence Berkeley National Laboratory to discharge treated groundwater only from its facility at One Cyclotron Road in Berkeley, California.
- III. Lawrence Berkeley National Laboratory shall cease discharge of groundwater immediately if not in compliance with any of the Terms and Conditions of this Permit.
- IV. Lawrence Berkeley National Laboratory shall comply with all items of the attached *Standard Terms and Conditions, March 2001 Edition (STC)*.

COMPLIANCE REQUIREMENTS

- I. Lawrence Berkeley National Laboratory shall not discharge any radioactive wastewater into a community sewer except when all of the following conditions are met: -
 1. Lawrence Berkeley National Laboratory is authorized to use radioactive material by the Nuclear Regulatory Commission or other governmental agency empowered to regulate the use of radioactive materials.
 2. The radioactive wastewater is discharged in strict conformity with current Nuclear Regulatory Commission regulations and recommendation for safe disposal and in compliance with all rules and regulations of State and local regulatory agencies.
- II. Lawrence Berkeley National Laboratory shall pretreat all groundwater prior to discharging to the side sewer at One Cyclotron Road, Berkeley. Pretreatment shall consist of processes displayed in the following diagrams, at a minimum:

Figure 3, B51 Fire Trail Treatment System Schematic Flow Diagram, 12120199

Figure 4, B46 Treatment System, Schematic Flow Diagram, 818101

Figure 5, B51 Motor Generator Room Basement Treatment System, -1013100

*Figure 6, Building 7 Groundwater Collection Trench Treatment System
Schematic Flow Diagram, 1217199*

Figure 7, Building 6 Schematic Flow Diagram Treatment System, 818101

Figure Z Building 51L Treatment System Schematic Flow Diagram, 818101



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COMPLIANCE REQUIREMENTS (continued)

- V. Lawrence Berkeley National Laboratory shall maintain the pretreatment systems in proper operating condition.
- IV. Lawrence Berkeley National Laboratory shall maintain records of operation and maintenance activities on the pretreatment systems. The records shall include, but not be limited to, flow meter readings from the flow totalizers on the effluent side of each of the pretreatment systems, at a maximum of monthly intervals; maintenance activities performed; description of operational changes; description of visual observations of the unit for leaks or fouling; and office of hazardous wastes. The records shall be available to the District staff upon request.

REPORTING REQUIREMENTS

- I. Violations shall be reported in accordance with Section B of STC.
- II. Lawrence Berkeley National Laboratory shall submit technical reports as required below.

<u>Date Due</u>	<u>Reporting Period</u>
March 31, 2002	September 9, 2001 through February 28,
October 8, 2002	2002 March 1, 2002 through September 8,
March 31, 2003	2002 September 9, 2002 through February
October 8, 2003	28, 2003 March 1, 2003 through September
	8, 2003

The technical reports shall contain the following information, at a minimum:

- 1. Self-monitoring reports prepared in accordance with the "Self-Monitoring Reporting Requirements" of this Permit.
- 2. Monthly readings from flow totalizers on the effluent side of each pretreatment system. Volume of groundwater pumped and treated during the reporting period, and a total to date.
- 3. Certification and signature prepared in accordance with Section B Part V of STC, "Signature Requirements".
- 4.

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WASTEWATER DISCHARGE LIMITATIONS

Lawrence Berkeley National Laboratory shall not discharge wastewater from the pretreatment systems into a sanitary sewer if the strength of the wastewater exceeds the following:

Regulated Parameter	Daily Maximum (mg/L)
Tetrachloride	0.005
Chloroform	0.014
1,1-dichloroethane	0.005
1,1-dichloroethene	0.005
Cis-1,2-dichloroethene	0.005
Trichloroethene	0.005
1,1,1-trichloroethane	0.005
1,1,2-trichlorotrifluoroethane	0.005
Tetrachloroethene	0.005
Vinyl Chloride	0.005
Polychlorinated biphenyls (PCBs)*	0.0002

*PCBs are defined as the sum of detectable concentration of Arochlors 1016, 1221, 1232, 1242, 1248, 1254 and 1260.



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SELF-MONITORING REPORTING REQUIREMENTS

- I Lawrence Berkeley National Laboratory shall monitor and obtain representative samples of the wastewater discharged from the pretreatment systems in accordance with Section C of STC.
- II Self-monitoring reports shall contain all laboratory results and the corresponding chain of custody documentation, and signatory requirements.
- III. The sampling locations are identified as follow:
(Note: Side Sewer #1 (SS#1) is the side sewer that connects to the community sewer at Hearst Avenue. SS#1 conveys the final discharge from the pretreatment systems to combine with other discharges at the facility prior to discharging to the community sewer.)
 1. Samples representative of discharges from the B51 Fire Trail Treatment System to SS#1 are to be obtained from Process Sampling Point #2 (PSP#2). PSP#2 is the sample tap located on the formal effluent side of the B51 Fire Trail Treatment System. PSP#2 is indicated in *Figure 3, Building 51 Fire Trail Treatment System Schematic Flow Diagram, 12120199*.
 2. Samples representative of discharges from the B46 Treatment System to SS#1 are to be obtained from Process Sampling Point #3 (PSP#3). PSP#3 is the last sample tap located on the final effluent side of the B46 Treatment System. PSP#3 is indicated in *Figure 4, B46 Treatment System, Schematic Flow Diagram, 818101*.
 3. Samples representative of discharges from the Building 5 1. Motor Generator Room Basement Treatment System to SS#1 is to be obtained from Process Sampling Point #4 (PSP#4). PSP#4 is the sample tap located on the final effluent side of the B51 Motor Generator Room Discharge Sump Treatment System. PSP#4 is indicated in *Figure 5, Building 51 Motor Generator Room Basement Treatment System, 1013100*.
 4. Samples representative of discharges from the Building 7 Groundwater Collection Trench Treatment System to SS#1 are to be obtained from Process Sampling Point #5 (PSP#5). PSP#5 is the sample tap located on the final effluent side of the Building 7 Groundwater Collection Trench Treatment System. PSP#5 is indicated in *Figure*6, Building 7 Groundwater Collection Trench Treatment System Schematic Flow Diagram, 1217199*.
 5. Samples representative of discharges from the Building 6 Treatment System to SS#1 are to be obtained from Process Sampling Point #6 (PSP#6). PSP#6 is sample tap SP3 located on the final effluent side of the Building 6 Treatment System. PSP#6 is indicated in *Figure 7, Building 6 Treatment System Schematic Flow Diagram, 818101*.



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SELF-MONITORING REPORTING REQUIREMENTS (continued)

6. Samples representative of discharges from the Building 5 1 L Treatment System to Side, Sewer No. I (SS#1) are to be obtained from Process Sampling Point #7 (PSP#7). PSP#7 is the last sample tap located on the final effluent side of the Building 5 1 L Treatment System. PSP#7 is indicated in *Figure 2, B51L Treatment System Schematic Flow Diagram, 818101.*

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- IV. Groundwater discharge to the sanitary sewer shall be sampled at the following locations at the indicated frequency, at a minimum, for the following parameters:

Parameter	Sample Type	EPA Method	PSP#2, PSP#3, PSP#5, PSP#7	PSP#4	PSP#6
Carbon Tetrachloride	grab	8260/624	quarterly	quarterly	quarterly
Chloroform	grab	8260/624	quarterly	quarterly	quarterly
1,1-dichloroethane	grab	8260/624	quarterly	quarterly	quarterly
1,1-dichloroethene	grab	8260/624	quarterly	quarterly	quarterly
Cis-1,2-dichloroethene	grab	8260/624	quarterly	quarterly	quarterly
Trichloroethene	grab	8260/624	quarterly	quarterly	quarterly
1,1,1-trichloroethane	grab	8260/624	quarterly	quarterly	quarterly
1,1,2-trichlorotrifluoroethane	grab	8260/624	quarterly	quarterly	quarterly
Tetrachloroethene	grab	8260/624	quarterly	quarterly	quarterly
Vinyl Chloride	grab	8260/624	NA	quarterly	quarterly
PCBs*	grab	608	NA	quarterly	NA

NA - not applicable

*PCBs are defined as the sum of detectable concentration of Arochlors 1016, 1221, 1232, 1242, 1248, 1254 and 1260. The method detection limit for each of the Arochlors shall be a minimum of the following:

PCB-1221	0.00014	mg/l
PCB-1232	0.00006	mg/l
PCB-1242	0.00002	mg/l
PCB-1248	0.00010	mg/l
PCB-1254	0.00008	mg/l
PCB-1260	0.00009	mg/l
PCB-1016	0.00002	mg/l



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MONITORING and TESTING CHARGES

EBMUD Inspections Per Year: 3 @ \$540.00 each = \$1,620.00 / year

Analyses Per Year:

Parameter	Tests per year	Charge per test	Total Charge per year
EPA 608	1	\$174.00	\$174.00
EPA 624	6	\$146.00	\$876.00

Total Monitoring and Testing Charge = \$2,670.00 / year
\$222.50 / month

WASTEWATER DISPOSAL CHARGE

All wastewater discharged will be charged for treatment and disposal service at the unit rate measured for other carbon, treated groundwater discharges. (1 Ccf = 100 cubic feet = 748 gallons)

Unit rate = 0.4 /Ccf
Discharge volume = 420 Ccf/month or \$168.00 /month

WASTEWATER CAPACITY FEE

The volume of the groundwater discharge is included in the capacity charge paid by Lawrence Berkeley National Laboratory when the facility was first connected to the community sewer.



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FEES AND WASTEWATER CHARGES

The following fees and charges are due when billed by the District:

Permit Fee:	\$2,490.0
Monthly Monitoring Charge:	0
Monthly Wastewater Disposal Charge	\$222.50
Monthly Wastewater Capacity Fee	\$168.00
Total Monthly Charges =	<u>\$0.00</u>
	\$390.50

The District may change the terms and conditions of a Wastewater Discharge Permit, including changing the average limits on the 9

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elements of wastewater strength and rates and charges, from time to time as circumstances may require. The District shall allow a discharger reasonable time to comply with any District required changes in the permit except that a change in average limits of wastewater strength shall immediately affect calculation of the wastewater disposal charge.

Charges listed in this Permit will be assessed on EBMUD bills in accordance with the EBMUD Meter Reading Schedule.

AVERAGE WASTEWATER DISCHARGE *

Authorization

Permit Holder shall report to EBMUD, Wastewater Department any changes, permanent or temporary, to the premises or operations that significantly change the quality or volume of the wastewater discharge or deviation from the terms and conditions under which this permit is granted.

Permit Holder is hereby authorized to discharge wastewater to the community sewer, subject to said Applicant's compliance with EBMUD Wastewater Control Ordinance No. 3 11 and permit compliance conditions, reporting requirements and billing conditions.

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da%

9/9/2001

Effective:

9/8/2003

Expiration: _

Director, Wastewater Department

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